



State of Ohio Environmental Protection Agency

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George V. Voinovich
Governor

June 1, 1999

Mr. Johnny Reising
U.S. Department of Energy, Fernald Area Office
P.O. Box 538705
Cincinnati, OH 45253-8705

RE: COMMENTS: OU1 RA PACKAGE

Dear Mr. Reising:

Ohio EPA has reviewed DOE's April 2, 1999 submittal, "Draft Final Remedial Action Document Package for OU1". Based upon our review, Ohio EPA provides the attached comments.

If you have any questions, please contact me at (937) 285-6466.

Sincerely,

Thomas A. Schneider
Fernald Project Manager
Office of Federal Facilities Oversight

cc: Jim Saric, U.S. EPA
Terry Hagen, FDF
Ruth Vandergrift, ODH
Mark Shupe, HSI GeoTrans
Francie Barker, Tetra Tech EM Inc.

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WPRAP Remedial Action Package, April 1999

Response to Comments

1. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: n/a Pg #: O-1 Line #: n/a Code: General Comment
Original Comment #: 1
Comment: We disagree with the statement that "Occupational radon monitoring plans are not required as part of the Remedial Action Package". Normally this would be true, but since the agreement, as understood by OEPA, folds the occupational radon monitoring in with BAT for the control of fugitive radon emissions, a plan for the placement of the radon monitors should be included in the RA Package. Further, this agreement was made as a way for Fernald to save money and time for both the OU1 project and the IEMP.
2. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: n/a Pg #: O-4 Line #: na Code: C
Original Comment #: 5
Comment: The response indicates that the high radon alarm will be 0.013 Ci/hr, but the design of the stack emission radon monitor is stated to be 0.01 Ci/hr. Typical detection design is to monitor to at least 10% of the limit.
3. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.2 Pg #: 3 Line #: 4-9 Code: C
Original Comment #: 6
Comment: This paragraph references soils generated as part of OU1 that will go to the OSDF. The document should clearly define which soils DOE believes are appropriate for the OSDF. Most importantly any soils which DOE intends to send to the disposal cell must be characterized in-situ and in accordance with the SEP and WAC Attainment Plan. Further incidences in which IT excavates soils and generates piles without prior characterization, must not be tolerated.
4. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: n/a Pg #: O-5,6 Line #: na Code: C
Original Comment #: 7
Comment: Disagree that no action is required. Ohio EPA will verify compliance using the standards outlined in OAC 3745-17-12, et al.
5. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: na Pg #: O-6,7 Line #: na Code: C
Original Comment #: 9
Comment: The statement "It is neither the purpose, nor the intent, of this occupational monitoring to ensure the effectiveness of BAT" is not consistent with OEPA's understanding of previous agreements. If ensuring the effectiveness of BAT is not one of

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the purposes of 5 radon monitors proposed, then DOE should provide a comprehensive radon monitoring plan to ensure that radon emissions are ALARA.

6. Commenting Organization: Ohio EPA Commentor: OFFO

Section #: na Pg #: U-8 Line #: na Code: C

Original Comment #: 4

Comment: OEPA agrees with USEPA comment. As part of a comprehensive monitoring network Ra-226 should be included as one of the isotopes measured from the stack emissions. IEMP fence line monitors analyze for this isotope and it makes sense to monitor for contributors to the fence line dose. Note: Rather than shutting down all projects on-site due to elevated fence line concentration of Ra-226, OU1 could demonstrate that these concentrations were not due to their emissions.

Comments on Remedial Action Package, March 1999

7. Commenting Organization: Ohio EPA Commentor: DHWM

Section #: Pg #: Line #: Code: M

Original Comment #:

Comment: The Ohio EPA has reviewed DOE's letter dated March 23, 1999 and the subsequent clarification letter dated May 27, 1999. These letters document DOE's determination regarding the regulatory status of the various waste pits associated with OU1. The Ohio EPA concurs with DOE's determination that the only instance of listed waste disposal is associated with the NEC solvent disposal area adjacent to the burn pit.

DOE will be preparing a plan that will address sampling and remediation of the NEC solvent area. The Ohio EPA reserves judgement on DOE's proposed use of the U.S. EPA November 13, 1986 "contained-in" interpretation until such time that the NEC solvent area plan is submitted and reviewed.

8. Commenting Organization: Ohio EPA Commentor: DHWM

Section #:2.7.1 Pg #: 15,16 Line #: 34 & 45, 1 Code: M

Original Comment #:

Comment: Should processed material be determined to be RCRA characteristic waste and/or TSCA regulated waste, provide sufficient information to identify how and where the material will be managed on-site, and identify the proposed treatment and disposal methods.

9. Commenting Organization: Ohio EPA Commentor: DHWM

Section #:2.7.3 Pg #:16 Line #: 15, 16 and 17 Code: C

Original Comment #:

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Comment: The plan should identify contingency options or procedures (beyond "turned over to FDF") in the event that material is rejected and railcars unloaded at the CDF because of RCRA and/or TSCA characteristics.

10. Commenting Organization: Ohio EPA Commentor: DHWM
Section #: 5 Pg #: Line #: Code: C
Original Comment #:
Comment: Section 5 of the WPRAP describes general procedures for removal and interim management of non-typical wastes which may be encountered during the excavation process. Contingent procedures for the removal and subsequent management of materials which are RCRA and/or TSCA waste (or potentially RCRA and/or TSCA) need to be better identified. For example, this section makes references to a "Non-Typical Waste Transfer Area", but does not provide information on the location of this area, nor detail it's operational procedures. NOTE: Section 8.0 provides a listing of "Procedures and Plans Governing Operations", including Standard Operating Procedures (SOP) for aspects of this project (e.g.; Waste Pit Material Handling; Non-Typical Waste Handling; Waste Pit Water Management, etc.). These SOP's are not provided as part of the WPRAP document and this reviewer assumes that some SOP's are not yet developed. If this is the case in regard to the Non-Typical Waste Transfer Area, Ohio EPA must concur with, or approve of, SOP information developed concerning the identification, characterization, and management of RCRA (or potentially RCRA) wastes excavated or encountered during waste pit excavation.
11. Commenting Organization: Ohio EPA Commentor: DHWM
Section #: 5.1 Pg #: 29 Line #: 25 Code: M
Original Comment #:
Comment: The non-typical waste criterion for drums (or other containers) that might be encountered during excavation should not be so narrow as "unopened intact drums".
12. Commenting Organization: Ohio EPA Commentor: DHWM
Section #: 5.2 Pg #: 30, Line #: 4 & 5 Code: C
Original Comment #:
Comment: The statement that "Treatment of non-typical wastes includes emptying and appropriately managing the contents of drums, cylinders, transformers, etc.", does not adequately describe the reasonable procedures necessary for proper management of such materials.
13. Commenting Organization: Ohio EPA Commentor: DHWM
Section #: 5.2 Pg #: 30 Line #: 10-23 Code: C

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Original Comment #:

Comment: Materials encountered which possess or exhibit "pyrophoric properties" may meet the definition of a RCRA characteristic (D003-reactive) waste.

14. Commenting Organization: Ohio EPA Commentor: DHWM
Section #: 5.2 Pg #: 31 Line #: 7, 8 & 9 Code: C

Original Comment #:

Comment: An inspection of drum contents would most probably be insufficient to make a determination of "processable or non-processable" in the event of encountering RCRA and/or TSCA wastes.

15. Commenting Organization: Ohio EPA Commentor: DHWM
Section #: ARAR Tables Pg #: Line #: Code: C

Original Comment #:

Comment: The ROD ARARs table references OAC 3745-52-11 (40 CFR 262.11). This reference is omitted from the Draft Final WPRAP Remedial Action Package ARARs table. This should be added as an applicable and appropriate regulation, and narrative should be added throughout the document to reflect that waste generated (pit material, pyrophoric material, non-processable material, drummed material, etc.) will be properly characterized to determine whether it is a hazardous waste.

16. Commenting Organization: Ohio EPA Commentor: DHWM
Section #: ARARs Table Pg #: Line #: Code: C

Original Comment #:

Comment: The ARARs table references OAC 3745-56-51, 54 and 58, which are waste pile regulations. The compliance strategy language identifies the possibility of outdoor waste piles, and briefly references management standards for these piles. Various sections of the WPRAP Remedial Action Package are referenced for design information. These sections do not provide specific information which describe run-on/run-off and wind dispersion control measures for these piles. These sections must be revised to include such specific descriptions.

O&M Plan:

17. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.3.1 Pg #: 22 Line #: 4-10 Code: C

Original Comment #:

Comment: Please provide design drawings for CAM including logic used to discriminate Rn-220 and Rn-222, as well as, the discrimination between radon daughters and particulate collected on the filter.

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Operations Environmental Control Plan:

18. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 4.1 Pg #: 7 Line #: 3-6 Code: C
Original Comment #:

Comment: This states that "Silt fences will be utilized in the waste pit area to prevent excessive erosion and/or sedimentation during excavation activities" Installation of silt fence is to cause sedimentation. The silt fence acts as a porous dam to slow the flow of runoff. Retention time allows the sediment to settle. Silt fence can be used to reduce erosion by capturing and slowing sheet flow.

19. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.1 Pg #: 8 Line #: 27-31 Code: C
Original Comment #:

Comment: This paragraph states a number of measures that may be used to minimize dust generation. One of the measures to include should be a "street-sweeper" or a statement that would state, "or any other measures to ensure compliance with applicable regulations".

20. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 6.3 Pg #: 11 Line #: 11-12 Code: C
Original Comment #:

Comment: The text states that CAM system readings may also be compared to the FDF stack limits to verify compliance with emission limits. Comparing the CAM system readings to the FDF stack limits is a good management practice. Change "may" to "shall".

Sampling and Analysis Plan for Environmental Media:

21. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.2 Pg #: 2 Line #: 24-26 Code: C
Original Comment #:

Comment: This bullet states that air monitoring contained within the IEMP is not addressed in the SAP. Provide a description of how IEMP air monitoring will be "integrated" into the WPRAP project; i.e., how will data be used for decision making, which monitors will be used for decision making, frequency of data reporting, and administrative control limits for concentrations that would lead to a decision making process.

22. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.2 Pg #: 2 Line #: 28-31 Code: C
Original Comment #:

Comment: This bullet states that occupational radon monitoring is not included in this SAP. If neither environmental nor occupational monitors are included as part of the SAP a

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discussion on the integration of the results does need to be included. Prior agreements entailed using the occupational radon monitors to measure the effectiveness of BAT radon control measures, as well as providing occupational information.

23. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 3.3, 3.4 Pg #: 26 Line #: 6-33 Code: C
Original Comment #:
Comment: The short list of parameters has been agreed to but a longer list of parameters and frequency of sampling is still under development
24. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.1 Pg #: 31 Line #: 18-20 Code: C
Original Comment #:
Comment: The text references Section 1.2, on how IEMP air monitoring will provide adequate monitoring for implementation of the OU1 remediation. Section 1.2 does not provide any detail on how IEMP monitoring will provide adequate monitoring. See comment 10.
25. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.5 Pg #: 33 Line #: 25-26 Code: C
Original Comment #:
Comment: The text states that a one time test is performed to verify design conditions. Any changes to the design or modifications to the ventilation system should require testing of the ventilation system.
26. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.5.2 Pg #: 33 Line #: 41-44 Code: C
Original Comment #:
Comment: See comment 12, as pertaining to dryer stack tests.
27. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.8 Pg #: 34 Line #: 29-33 Code: C
Original Comment #:
Comment: The change proposed on the frequency for filter collection should not be solely based on the sample results being less than MDA, other factors such as amount of radionuclides present in the feed to the dryer should be considered prior to changing the frequency of filter collection.
28. Commenting Organization: Ohio EPA Commentor: OFFO

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Section #: 4.8 Pg #: 34 Line #: 36-40 Code: C
Original Comment #:
Comment: Provide detailed design of radon monitoring system, when available.

29. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Table 4.2 Pg #: 36 Line #: na Code: C
Original Comment #:
Comment: Radium-226 should be included as an analyte for stack emissions. Although emission estimates (based on modeling) show that this radionuclide will contribute less than 10% of TEDE, the data used, presumably RI/FS, is rather sparse and would indicate a high level of uncertainty in the estimates. Radium-226 maximum concentrations in Pits 2 and 3 are ~14% of total U concentrations, ~30% total Th concentrations. This would indicate that radium-226 may make a more significant contribution to TEDE than estimated.

Sampling and Analysis Plan for Waste Pit Material:

30. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.2 Pg #: 2 Line #: 41-45 Code: C
Original Comment #:
Comment: This paragraph should be revised to reflect the fact that SP-7 was characterized in-situ.
31. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.2 Pg #: 3 Line #: 4-9 Code: C
Original Comment #:
Comment: This paragraph references soils generated as part of OU1 that will go to the OSDF. The document should clearly define which soils DOE believes are appropriate for the OSDF. Most importantly any soils which DOE intends to send to the disposal cell must be characterized in-situ and in accordance with the SEP and WAC Attainment Plan. Further incidences in which IT excavates soils and generates piles without prior characterization, must not be tolerated.
32. Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 2.3 Pg #: 8 Line #: 17 Code: C
Original Comment#
Comment: The phrase "initial visual identification of non-typical wastes" seems inappropriate given its usage in the referenced text. Based on discussions elsewhere in the document, a waste would be designated as non-typical if it were shown through chemical analysis to have out-of-limits concentrations of TCLP metals, organics, PCBs, pH, etc. These conditions would not likely be evident from visual inspection. It, therefore,

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seems as though the term "off-spec materials" as discussed in Section 7.0 of the Final First Loadout Work Plan for the Waste Pits Remedial Action Project (WRAP) is more applicable.

33. Commenting Organization: Ohio EPA Commentor: DHWM
Section #: 2.3.1& 2.7 Pg #: 9 , 13 Line #: 8 through 16 & 40 through 43 Code: C
Original Comment #:
Comment: Stated sample collection procedures will result in a 235 to 230 pound composite sample of bin material. Ohio EPA must concur with, or approve of, the referenced operations procedure to be developed for collection, handling, and preparation of bin composite samples.
34. Commenting Organization: Ohio EPA Commentor: DHWM
Section #: 2.3.2, Figures 2.2, 2.3, 2.4 Pg #: 10, 16, 17, 18 Line #: footnote 1 Code: C
Original Comment #:
Comment: Information in the footnote and decision tree figures indicates that samples failing RCRA TCLP (and TSCA PCB limits) or pH parameters will result in a waste management process to "define extent of problem", which can apparently lead to regarding the (already) blended material as passing TCLP and meeting the Envirocare WAC. Revise SAP information to further explain this process. Include information to explain how the process would comply with RCRA's mandate of impermissible dilution.
35. Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 2.3.2 Pg #: 10 Line #: 11 Code: C
Original Comment#
Comment: Pre-designation of specific soil increments for PID screening is only appropriate given that there is no visual justification for selecting any one increment over another. Given the occurrence of staining or other evidence for contamination, the selection of soil increments for PID screening should be biased on visual characteristics of the soil.
36. Commenting Organization: OEPA Commentor: HSI GeoTrans, Inc.
Section #: 2.3.2 Pg #: 10 Line #: 18 Code: C
Original Comment#
Comment: As indicated in the footnote, the PID readings will be used as a proxy for passing TCLP concentrations and that given the occurrence of a higher reading, the corresponding sample will be TCLP tested to verify that it also passes TCLP. Implicit in this approach is that all samples that "peg" the PID meter (give an off scale reading) will require TCLP testing because a sample that pegs the meter and passes will not be distinguishable from one that pegs the meter and fails.

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